Contents of Volume 23

NUMBER 1 JANUARY–FEBRUARY 1994

From the Editor: Again, 'The New Editorial Board' 1
J. GILFRICH

Chemical Characterization of Environmental Particulate Matter Using Synchrotron Radiation 3
S. TOROK, G. FAIGEL, K. W. JONES, M. L. RIVERS, S. R. SUTTON AND S. BAJT

Bent and Flat Highly Oriented Pyrolytic Graphite Crystals as Small Bragg Angle Monochromators in Thin-Specimen Energy-Dispersive XRF Analysis 7
B. BECKHOFF AND J. LAURSEN

Anomalous X-ray Absorption of the MOC Lines in the Rare Earth Elements 19
J. L. LABAR

Simultaneous Matrix and Background Correction Method and its Application in XRF Concentration Determination of Trace Elements in Geological Materials 27
Y. N. HUA AND C. T. YAP

Lowering the Limits of Detection of X-ray Fluorescence Analysis in the Electron Microscope 32
A. BARNA, I. POZSGAI, C. E. FIORI AND S. A. WRIGHT

X-Ray Fluorescence Analysis with Elements Having Overlapped Lines 36
R. T. MAINARDI AND R. A. BARREA

Energy-dispersive XRF Analysis of Pure Element Intensities from their Oxides Using a Cd-109 Source 40
Y. N. HUA AND C. T. YAP

Book Review: Handbook of X-Ray Spectrometry: Methods and Techniques by R E Van Grieken and A A Markowicz 45
J. V. GILFRICH

News 47

NUMBER 2 MARCH–APRIL 1994

From the Editor: Sample Preparation 51
J. GILFRICH

Analysis of Archaeological Pottery by X-Ray Fluorescence Spectrometry Applying the Limit Dilution Method 53
M. T. DOMÉNECH CARBÓ, F. BOSCH REIG, J. V. GIMENO ADELANTADO AND V. PERIS MARTINEZ

Quantitative Analyses of Aerosol Filters by Wavelength-Dispersive X-Ray Spectrometry From Bulk Reference Samples 59
J. P. QUISEFIT, P. DE CHATEAUBOURG, S. GARIVAIT AND E. STEINER

Applicability of Annular-Source Excited Systems in Quantitative XRF Analysis 65
G. BERNASCONI, S. A. BAMFORD, B. DOSAN, N. HASELBERGER, A. MARKOWICZ, A. MAHMOUD AND V. VALKOVIC

Wavelength-Dispersive X-Ray Fluorescence Spectrometric Technique for Determining Elements in Weld Fumes 71
K. SWAMY, R. KALIAPERUMAL AND G. S. SWAMINATHAN

Relative Intensities of $L\alpha_1$, $L\beta_1$ and $L\beta_{2,3,15}$ Lines of Gold: Photoexcitation with the Continuum, in and Near the Threshold Region 75
R. M. AGRAWAL AND S. N. JHA

Effect of Features of Inner Atomic Shells Excitation by Accelerated Ions on the Shape of the Emitted X-Ray Lines 79
V. A. ALTYNOV AND S. M. BLOKHIN

X-Ray Fluorescence Analyses of Base Metal Sulfide and Iron–Manganese Oxide Ore Samples in Fused Glass Disc 83
J. SPANGENBERG, E. PERNICKA AND L. FONTBOTÉ

Determination of Selected Trace Elements in Silicates by Electron and Proton Probe Microanalysis 91
R. J. SWEENEY, W. JABLONSKI AND S. H. SIE

Efficiency Calibration of a Ge(In) Semiconductor Detector by Thin- and Thick-Target PIXE 96
N. KALLITHRAKAS-KONTOS AND A. A. KATSANOS

News 100

Forthcoming Meetings and Events 101

NUMBER 3 MAY–JUNE 1994

From the Editor: The New Look 103
J. GILFRICH

Method for Quantitative Electron Microprobe EDS X-ray Analysis of Small Inclusions in Matrices with Similar Composition 105
R. STOYANCHEV, T. ILIEV AND K. RECALOV

EXFIT—a Computer Code for Processing of Energy-dispersive X-ray Fluorescence Spectra of Environmental Thin Samples 112
K. N. STOEV AND J. F. DLOUHY

Scanning Electron Microscopy and X-ray Energy-dispersive Spectroscopy of Surface Micro-transformations in Ca–P Glasses 120
G. VALDRE

Kinetic Equation-Based Calculation of the Electron Distribution in the Target Exposed to the Electron Beam 125
L. A. BAKALEINIKOV AND E. A. TROPP

Silicon Particle Size Effect in X-ray Fluorescence Analysis of Pitch 130
F. R. FERET

Effect of Counter Ions on X-Ray Absorption Discontinuity 137
P. V. KHADIKAR, S. JOSHI, N. F. MANGALSON AND J. E. SILK

Monte Carlo Simulation of the Scattering Contributions to the XRF Line 141
H. J. SANCHEZ AND R. SARTORI

Book Review: Advances in X-ray Analysis, Volume 36 145
M. A. SHORT

News 147

NUMBER 4 JULY–AUGUST 1994

From the Editor: Nomenclature 149
J. GILFRICH

Quantitative Analysis of Some Elements of Aydin Basin Soils by X-ray Fluorescence Spectrometry 151
A. BASSARI AND M. KUMRU

Measurement of Composition of Thin Films Obtained by Sputtering, using Radioisotope Excited X-ray Fluorescence 155
J. A. MOORE AND T. ELSAHLLI

A Novel Method to Ascertain Sample Mass Thickness and Matrix Effects for X-ray Fluorescence Element Determinations 160
R. D. GIAUQUE

An Analytical Algorithm for Correction of Edge Effects in X-Ray Microfluorescence Analysis of Geological Samples 169
M. LANKOSZ AND P. A. PELLA

Quantitative Total-reflection X-ray Fluorescence Analysis with Monoenergetic Excitation 173
W. LADISICH, R. RIEDER AND P. WOBRAUSCHEK

X-Ray Fluorescence Escape Peaks in HgI_2 Detectors 178
X. LIU-XU, C. HEITZ, P. SIFFERT AND R. REGAL

EXDRF of Complex Objects: Some Problems and Solutions 183
V. I. SMOLNIAKOV

Application of Synchrotron Radiation-XRF Analysis in High-Temperature Superconducting Thin-Film Technology 187
V. A. TROUNOVA, V. S. DANILOVICH, K. Z. ZOLATAREV, M. R. PREDTECHENSII AND O. F. BOBRINOK

Book Review: Electron Microprobe Analysis 190
J. D. BROWN

News 191

NUMBER 5 SEPTEMBER–OCTOBER 1994

From the Editor: Electronic Manuscripts 193
J. V. GILFRICH

Analytical Electron Microscopy of Thin Segregated Layers 195
R. G. FAULKNER, T. S. MORGAN AND E. A. LITTLE

A Submicrometer Phase Chemical Composition Analysis with an Electron Probe Microanalyzer 203
F. C. WANG

Lℓ, Lα, Lβ and Lγ X-Ray Production Cross-Sections in Elements $57 \leq Z \leq 92$ by 8–50 keV Photons 208
K. S. MANN, N. SINGH, R. MITTAL, B. S. SOOD AND K. L. ALLAWADHI

Chlorine Determination in Photographic Developer Solutions using Wavelength-Dispersive X-Ray Fluorescence 218
M. A. MORSE

Calculation of Photo- and Auger Electron Contribution to X-ray Fluoresence Excitation of Elements with Low Atomic Number 221
G. V. PAVLINSKY AND A. Yu. DUKHANIN

Study on Journal Distribution of the Publications in the Field of X-ray Fluorescence Analysis 229
K. N. STOEV

Electronic Structure and L X-ray Emission Spectra of Molybdenum Carbide, Boride, Silicide and Silicocarbide 236
B. S. ACHARYA AND R. SAKTHIVEL

News 242

NUMBER 6 NOVEMBER–DECEMBER 1994

From the Editor: Roentgen '95 245
J. V. GILFRICH

Elemental Analysis of Gel-grown Rare-Earth Molybdate Crystals using Energy-Dispersive X-ray Fluorescence Spectrometry 247
C. K. BHAT, C. L. BHAT, M. LAL, P. K. PATRA AND P. N. KOTRU

Determination of Fractal Dimension in Cement Gels by PIXE 251
C. POTIRIADIS AND Y. BAKOPOULIS

Peak-to-background Method for Standardless Electron Microprobe Analysis of Particles 254
J. TRINCAVELLI AND R. VAN GRIEKEN

Tunable Exciting Energies for Total Reflection X-Ray Fluorescence Spectrometry Using a Tungsten Anode and Band-Pass Filtering 261
J. KNOTH, H. SCHNEIDER AND H. SCHWENKE

L-subshell Fluoresence Yields Measured with Synchrotron Radiation 267
H. J. SANCHEZ, M. RUBIO, R. D. PEREZ AND E. BURATTINI

Determination of the Copper Oxidation State in a Zeolite Catalyst Through the X-Ray Absorption Edge/Self-Absorption Effect by Electron Probe Microanalysis 272
F. WANG

Analysis of X-ray Spectra by Iterative Least Squares (AXIL): New Developments 278
B. VEKEMANS, K. JANSSENS, L. VINCZE, F. ADAMS AND P. VAN ESPEN

News 286

Author Index 288